

## WHAT IS CLAIMED IS:

1. A method for prefetching of images, the method comprising the steps of:

(a) providing a first file descriptive of a sequence of images required for carrying out a predetermined workflow, the first file comprising a reference for each of the images;

(b) providing a first pointer for pointing to a current image of the sequence of images;

(c) reading the reference of at least one subsequent image of the sequence of images which is subsequent to the current image in the workflow; and

(d) prefetching of the subsequent image by means of its corresponding reference.

2. The method of claim 1 further comprising the steps of:

(e) providing a second file descriptive of a number of cases to be sequentially processed in the workflow;

(f) providing a third file being descriptive of a sequence of images required for the processing of each individual case.

3. The method of claim 2 further comprising providing a second pointer for pointing to a current case of the number of cases to be sequentially processed.

4. The method of claim 1 whereby the first file comprises first data descriptive of an image format.

5. The method of claim 1 whereby the first file comprises second data descriptive of an image processing operation.

6. The method of claim 1 further comprising the step of assigning a priority to the subsequent image when the prefetching is performed.

7. The method of claim 1 comprising the further steps of caching prefetched images in an image cache, and removing prefetched images from the image cache by a least recently used algorithm.

8. The method of claim 1 comprising the further step of generating an image header for storage in a cache when the prefetching is performed.

9. The method of claim 8 wherein the header contains second data being descriptive of the required image format, an image processing operation, the priority of the image and a lock count for locking the image in the cache.

10. A method for prefetching of medical images from an image source, the method comprising the steps of:

(a) providing a case stack descriptive of a number of medical cases to be processed, each of the cases having assigned a predetermined number of medical images;

(b) providing a user definable file identifying the set of the images of each case to be sequentially rendered;

(c) prefetching of the set of images of a current case and prefetching of the set of images of a consecutive case into a cache from the image source.

11. The method of claim 10 wherein the user definable file comprises first data for indicating a required format of a respective image of the set of images.

12. The method of claim 10 wherein the user definable file comprises second data for specifying an image processing operation to be performed on the corresponding image of the set of images.

13. The method of claim 12 wherein the image processing operation is selected from the group consisting of scaling, CLAHE and wavelet enhancement.

14. The method of claim 10 comprising the further step of generating a header for each image to be prefetched, the header comprising an image reference of the said image to be prefetched, a priority, a lock count and a requestor of the image.

15. The method of claim 14 comprising the further step of increasing the priority by a first number for each additional requestor.

16. The method of claim 14 comprising the further step of reducing the priority by a second number for each release or cancellation of a requestor.

17. The method of claim 14 comprising the further steps of incrementing the lock count with each additional requestor and decrementing the lock count when a request is released or cancelled.

18. A computer system for rendering of medical images comprising

(a) an application program having at least one requestor program component for requesting of images;

(b) a workflow file for specifying a sequence of images to be processed;

(c) a cache memory coupled to the application program;

(d) a prefetcher program component being coupled to the cache memory and to the workflow file; and

(e) a data source for providing images to the cache memory;

the prefetcher program component enabling prefetching of at least one subsequent image of the sequence of images to be processed as indicated by the workflow file.

19. The computer system of claim 18 wherein the workflow file comprises a case stack for identifying a number of medical cases to be processed and a user definable file for identification of a set of images to be sequentially processed for each one of the cases, and wherein the prefetcher program component is enabled to prefetch the set of images of a current case and the set of images of another case as indicated by the case stack.

20. The computer system of claim 18 wherein the cache memory has a cache program component for routing of a request of an image to an appropriate data source.

21. The computer system of claim 18 further comprising a cache program component for generating header data for each image requested from the cache memory, the header data comprising a priority, a lock count and an image format for selection of a data source.

22. The computer system of claim 18 further comprising a scheduler coupled to a remote image server via a communication link, the remote image server containing a database of images and the scheduler being enabled to initialize a loading operation

from the image server to a local file system of the images required for carrying out the workflow as indicated by the workflow file.